

**DETAILED ACTION**

***Response to Amendment***

1. The remarks and amendment filed 3/4/2008 have been entered and fully considered.
2. Claims 1-10 are presented.
3. Claim 1 is amended.
4. The 112, 2<sup>nd</sup> paragraph rejection is withdrawn.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Munnelly et al., U.S. Patent No. 6,893,797 B2.

Munnelly teaches a heat-sensitive printing plate composition comprising a substrate and an imageable layer. The substrate comprises a hydrophilic surface (col. 3, line 14). The imageable layer comprises an allyl-functional polymeric binder (col. 3, line 49). Munnelly specifically teaches using an alkaline develop (col. 13, line 5). Therefore, the allyl-functional polymeric binder is capable of solubilizing in the alkaline developer. The imageable layer also comprises an infrared-absorbing cyanine dye (col.

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3, line 50). The cyanine dye is exemplified as formula (A) in column 6 of the reference. The cyanine dye comprises substituent groups  $R^{1a}$ ,  $R^{1b}$ ,  $R^{3a}$  and  $R^{3b}$ . Munnelly teaches that  $R^{1a}$  and  $R^{1b}$  may independently represent an alkyl, alkylsulfonate and an alkylcarboxylate group.  $R^{3a}$  and  $R^{3b}$  may independently represent an alkyl, COOR, OR and SR when R is an alkyl or aryl group. The substituent  $R^2$  may be an SR group wherein R is an aryl group as in instant claim 9. Munnelly also teaches that  $X_1$  and  $X_2$  independently represent a  $C(alkyl)_2$  group.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muller et al., U.S. Patent No. 6,864,040 B2.

Muller teaches an IR-sensitive composition comprising a support and an infrared-sensitive layer. The support is subjected to a surface roughening treatment to hydrophilize the support (col. 14, lines 3-14). The infrared-sensitive layer comprises a polymer binder that is capable of solubilizing in an aqueous alkaline developer (col. 3, line 34). The IR-sensitive layer also comprises an infrared absorbing dye, such as formula (A) of the reference (col. 4, lines 20-25). The IR absorbing dye of the Muller reference meets the limitations of the infrared-light absorbing compound. Specifically,

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R<sup>1</sup> is an alkyl or alkylsulfonate and R<sup>3</sup> independently represent a carboxyl, hydroxyl or a sulfo group as in instant claim 10 (col. 4, lines 34-42). Muller teaches the groups as COOR, OR and SR when R is a hydrogen atom. Muller also teaches that R<sup>1</sup> may be an alkyl with 1 to 4 carbons. The difference between the reference and the application is that Muller teaches a variety of groups as substituents in the infrared dye. However, it would have been obvious to one of ordinary skill in the art to use substituent groups, such as carboxyl, hydroxyl and sulfo groups because Muller teaches different combinations of the substituent groups are used to form a symmetrical infrared-absorbing dye as exemplified in the examples (col. 4, lines 65-67, col. 5, lines 1-8 and col. 6, lines 1-8).

### ***Response to Arguments***

Applicant's arguments filed 3/4/2008 have been fully considered but they are not persuasive.

Applicant argues that Munnelly does not teach that the infrared light absorbing compound has 3, 4 or 5 solubilizing groups. Further, applicant points to column 7, lines 18-23 wherein Munnelly shows the preferred substituent groups, which are not solubilizing groups as disclosed in applicants' specification.

Applicant is directed to column 6, lines 60-67, wherein Munnelly teaches substituent groups which are anionic or become anionic in an aqueous alkaline developer. Munnelly teaches these specific anionic groups in addition to an aqueous alkaline developer with a pH of about 7 or above (col. 12, lines 63-67). Therefore, the substituent groups of the infrared light absorbing compound are capable of becoming

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anionic in the aqueous alkaline developer. In addition, the specific solubilizing groups as in claim 10 are exemplified in column 6, lines 60-67 for the substituent groups. Munnelly may not specifically identify the substituent groups as solubilizing groups, however, the substituent groups as shown in column 6, lines 60-67 meet the limitations of an anionic substituent or capable of becoming anionic in an aqueous alkaline developer with a pH greater than 7 (col. 12, lines 63-67).

Applicant argues that Muller does not teach that the cyanine dye comprises solubilizing anionic groups in column 4, lines 52-57.

Applicant is directed to column 4, lines 20-25 and 30-42 wherein Muller specifically teaches COOH, OH as R<sup>3</sup>, sulfo groups as R<sup>2</sup> and alkylsulfonate or alkylammonium groups as R<sup>1</sup>. The COOH and OH groups are solubilizing groups as disclosed in claim 10 and the alkylsulfonate and alkylammonium groups are anionic groups which are also capable of solubilizing in an aqueous alkaline developer.

### ***Conclusion***

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Connie P. Johnson whose telephone number is 571-272-7758. The examiner can normally be reached on 7:30am-4:00pm Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Connie P. Johnson  
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